

Apparatus for the generation and supply of fluorine gas

Abstract

To provide an apparatus for fluorine gas generation and supply that is disposed in the gas supply system of a semiconductor processing system and that in the event of abnormalities in the apparatus enables back up by a safe and inexpensive structure.

An apparatus **30** for the generation and supply of gas is disposed in the gas supply system of a semiconductor processing system. This apparatus **30** contains an electrolytic cell **34** that generates fluorine gas and a cylinder **62** that holds a substitute gas selected from the group consisting of nitrogen fluoride, sulfur fluoride, and chlorine fluoride. The electrolytic cell **34** and cylinder **62** are connected to a gas switching section **56** that selectively supplies a gas utilization section with fluorine gas from the electrolytic cell **34** or with substitute gas from the cylinder **62**. A controller **40** controls the gas switching section **56** in such a manner that, upon detection of an abnormal state at the electrolytic cell **34** by an electrolytic cell detector **36**, substitute gas is supplied from the cylinder **62** to the gas utilization section.

Figure 1